

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images,
Please do not report the images to the
Image Problem Mailbox.

Figure 1

A. ctc aac cag tcc att gtc ca
B. tcc cgg ttg ctc tga gac at
C. gcc aca gtc atg ccc gtc ag
D. ctg cga tcc gac tca cca at
E. agt cct gtt ctc ttc cac
F. ctt tac tgc tgc cat ggg
G. cgc cgt tct cct gga tcc aa
H. ctg act cca gct gta tcc
I. ggt ctc cat ctc cga ttc
J. cct ggg gtg atg tgg agc
K. agt tcc aca aaa gta tcc
L. ctt tcg gct ctc ggc tgc
M. aac cag cgg ttg aag cgt

Figure 2A

- A. (T31028)
c*t*c* aac* cag t*c*c at*t gt*c* c*a
- A' . (T31029)
C*T*C* aaC* Cag T*C*C aT*T gT*C* C*a
- B. (T31030)
t*c*c* cgg t*tg c*t*c* tga ga*c* a*t
- C. (T31044)
g*c*c* aca gt*c atg c*c*c gt*c* a*g
- C' . (T31045)
g*C*C* aCa gT*C aTg C*C*C gT*C* a*g
- D. (T31049)
CT*g Cga T*C*C gaC* T*Ca C*C*a* a*t
- E. (T31054)
a*g*t* c*c*t gt*t c*t*c t*t*c* c*a*c
- E' . (T31055)
a*g*T* C*C*C* g*T*T C*T*C T*T*C* C*a*c
- F. (T31061)
C*T*T* TaC TgC* TgC* CaT* g*g*g
- G. (T31043)
C*gC* C*gT* T*C*T* C*C*T gga TC*C* a*a
- G' . (T31042)
c*gc* c*gt* t*c*t* c*c*t gga tc*c* a*

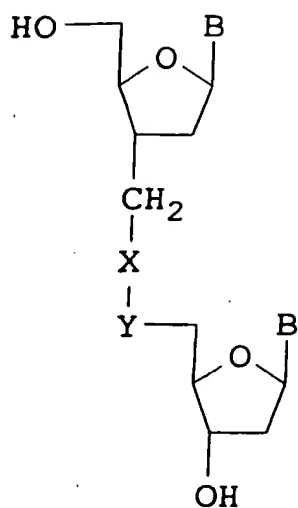
Figure 2B

H. (T31053)
 C*T*g* aC*T* C*Ca gC*T gTa* T*C*c
 H'. (T31052)
 c*t*g* ac*t* c*ca gc*t gta* t*c*c
 I. (T31057)
 g*g*T* CT*C* CaT* CT*C Cga* T*T*c
 I'. (T31056)
 g*g*t* ct*c* cat* ct*c cga* t*t*c
 J. (T31062/63)
 c*c*t* ggg gtg* atg* tgg* a*g*c
 K. (T31065)
 a*g*T* TC*C aC*a aaa gT*a* T*C*c
 K'. (T31064)
 a*g*t* tc*c ac*a aaa gt*a* t*c*c
 L. (T31067)
 C*T*T* Tcg gC*T C*T*C ggC* T*g*c
 L'. (T31066)
 c*t*t* tcg gc*t c*t*c ggc* t*g*c
 M. (T31069)
 a*a*C* Cag Cgg T*Tg aag* C*g*t
 M'. (T31068)
 a*a*c* cag cgg t*t*g aag* c*g*t

where * = phosphorothioate
 C = Propynyl dC
 T = Propynyl dT

4/12

Figure 3A



Hydroxylamine

MOMI

MMI

X

N-H

O

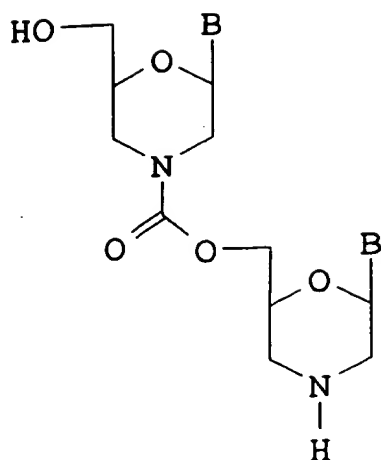
N-CH₃

Y

O

N-CH₃

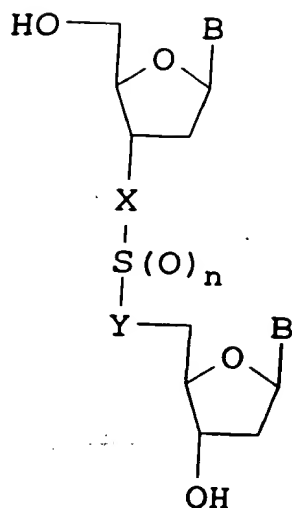
O



Morpholino-carbamate

5/12

Figure 3B



n = 2

Sulfate

Sulfonate

Sulfone

Sulfamate

Sulfonamide

X

O

O

CH₂

O

NH

Y

O

CH₂

CH₂

NH

CH₂

n = 1

Sulfite

Sulfoxide

O

CH₂

O

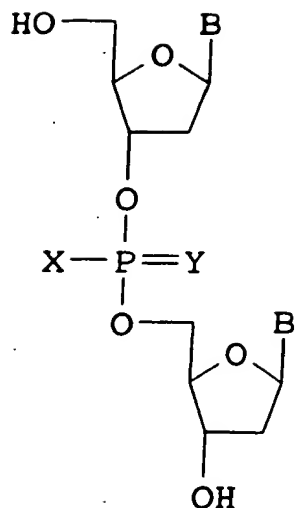
CH₂

n = 0

Sulfide

CH₂

CH₂



Phosphodiester

Phosphorothioate

Phosphorodithioate

Methylphosphonate

Phosphotriester

Phosphoramidate

Boranophosphate

X

O⁻

S⁻

S⁻

CH₃

O-R

NH-R

BH₃

Y

O

O

S

O

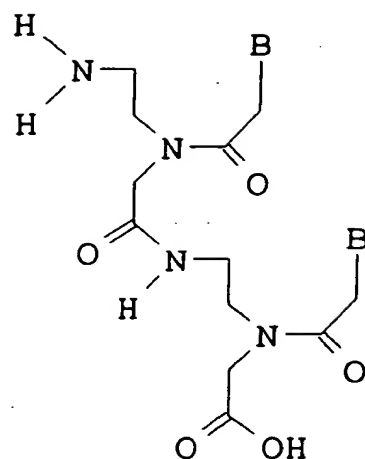
O

O

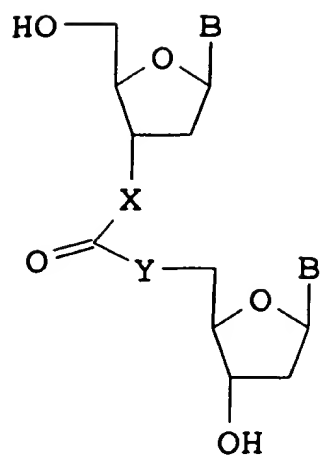
O

6/12

Figure 3C



PNA dimer



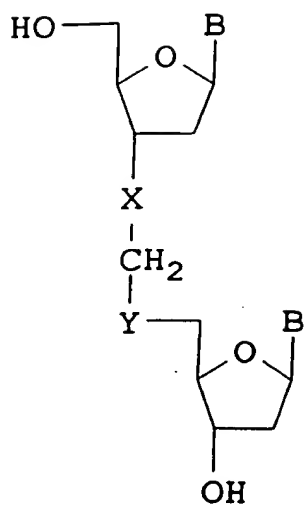
Carbonate
5'-N-carbamate

X
O
O

Y
O
NH

7/12

Figure 3D



Formacetal

5'-Thioether

3'-Thioformacetal

5'-Thioformacetal

X

O

CH₂

S

O

Y

O

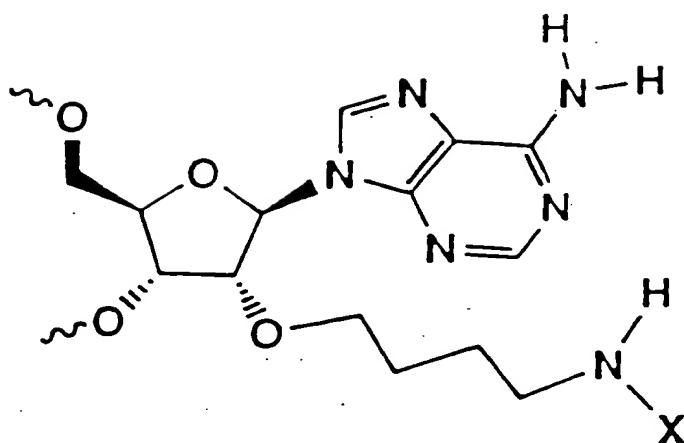
S

O

S

8/12

Figure 4

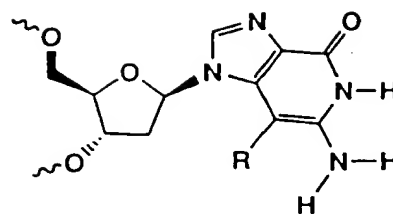


X = BIOTIN
= CHOLIC ACID
= FLUORESCCEIN

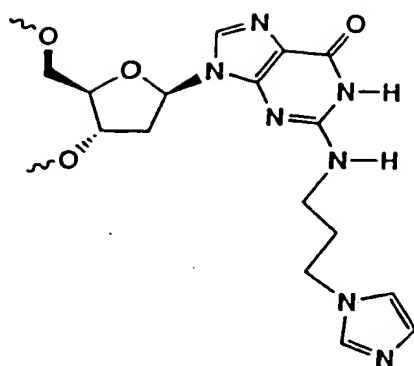
2'-O-(AMINOPENTYL) ADENINE
CONJUGATES

9/12

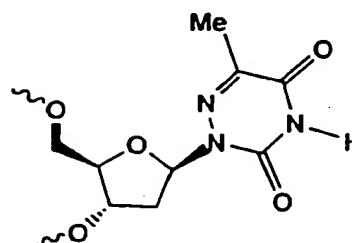
Figure 5A



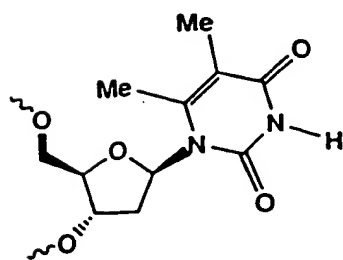
3-DEAZAGUANINES



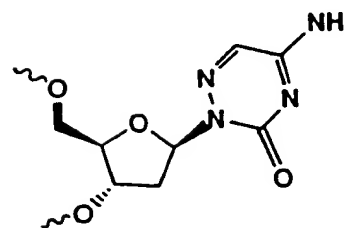
N2-IMIDAZOLYLPROPYL
GUANINE



6-AZATHYMIDINE



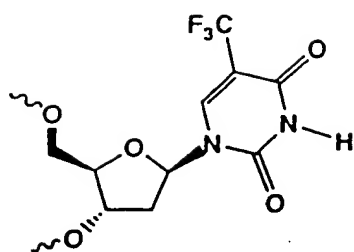
5,6-DIMETHYLTHYMIDINE



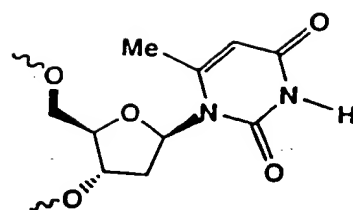
6-AZA-DEOXYCYTIDINE

10/12

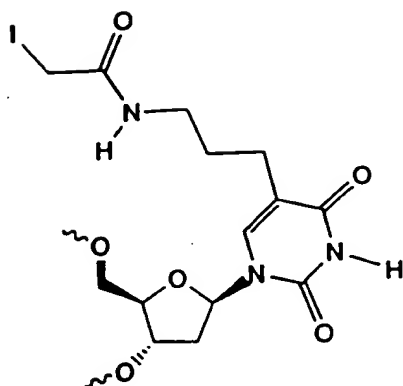
Figure 5B



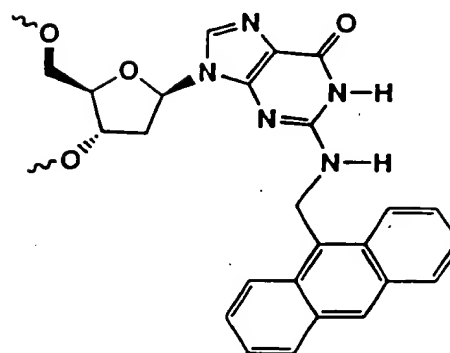
TRIFLUOROTHYMININE



6-METHYLTHYMIDINE



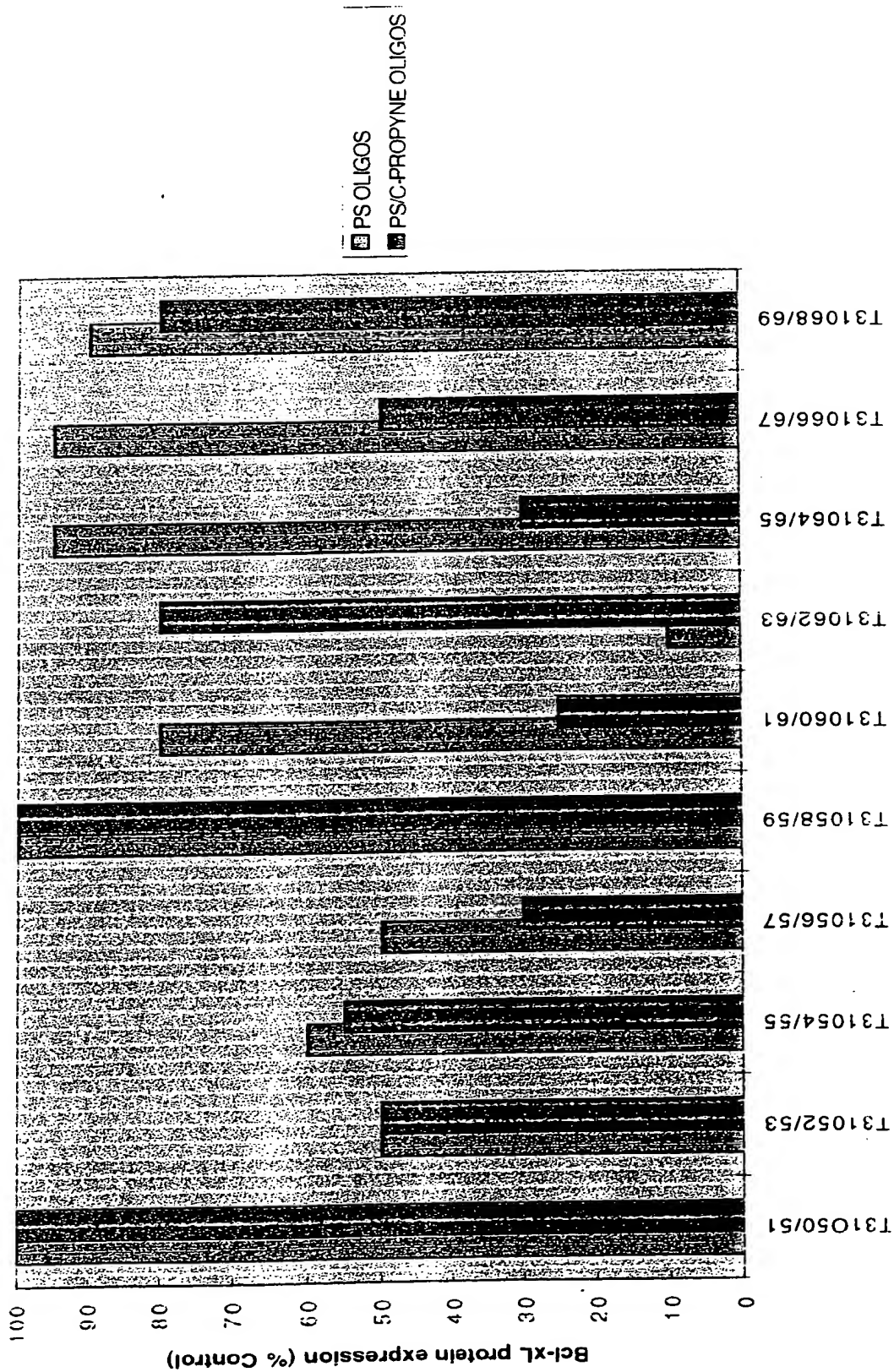
IDOACETAMIDOPROPYL URACIL



N2-ANTRACENYLMETHYL
GUANINE

11/12

FIGURE 6 Effect of 18-mer PS oligonucleotides on bcl-xL protein expression in LNCaP cells



12/12

FIGURE 7

LNCaP cell line

